

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of speculatively issuing memory requests in a network node while maintaining a specified packet order comprising:
 said network node receiving a first packet and a second packet for forwarding, wherein said first packet is received prior to said second packet;
 ~~maintaining said first packet and said second packet in a transfer order queue;~~
 said network node sending a first memory request corresponding to said first packet;
 said network node sending a second memory request corresponding to said second packet prior to said network node receiving a first memory reply corresponding to said first memory request ~~and prior to said second packet moving to a head of said transfer order queue;~~ and
 said network node forwarding said first packet prior to forwarding said second packet.
- 2-3. (cancelled)
4. (original) The method as described in Claim 1 wherein said first memory request is to request resource to forward said first packet.
5. (Currently Amended) The method as described in Claim 1 further comprising said network node receiving a second memory reply prior to forwarding said first packet.
6. (Currently Amended) The method as described in Claim 1 further comprising said network node receiving said first memory reply prior to forwarding said first packet.
7. (original) The method as described in Claim 1 wherein said first packet comprises an internet protocol packet.

8. (currently amended) A network method comprising:
receiving a first packet and a second packet for forwarding;
~~maintaining said first packet and said second packet in a transfer order~~
~~queue;~~
sending a first memory request corresponding to said first packet; and
sending a second memory request corresponding to said second packet
prior to forwarding said first packet ~~and prior to said second packet moving to~~
~~a head of said transfer order queue.~~

9-10. (cancelled)

11. (original) The method as described in Claim 8 wherein said first
memory request is to request resource to forward said first packet.

12. (original) The method as described in Claim 8 further comprising
receiving a second memory reply prior to forwarding said first packet.

13. (original) The method as described in Claim 8 wherein said first
memory reply is received prior to forwarding said first packet.

14. (original) The method as described in Claim 8 wherein said first packet
comprises an internet protocol packet.

15. (currently amended) A networking device comprising:
a first packet processor comprising:
an input interface having a port to accept incoming
packets;
an input memory coupled to said input interface for
temporarily storing said packets in a queue arranged by a
receiving order;
a second packet processor comprising:

an output interface having a port to send said packets out of said networking device;

an output memory coupled to said output interface for temporarily storing said packets;

a switching fabric coupled to said first packet processor and said second packet processor for conveying information between said first packet processor and said second packet processor; and

said first packet processor also for sending a memory request corresponding to a first packet which is not at a head of said queue to said second packet processor ~~prior to forwarding a packet which is at said head of said queue.~~

16. (Previously Presented) The networking device as described in Claim 15 wherein said first packet processor is also for receiving a memory reply message from said second packet processor corresponding to said memory request for a said first packet.

17. (Previously Presented) The networking device as described in Claim 16 wherein said first packet processor is also for sending a second packet to said second packet processor, wherein said second packet is at the head of said queue.

18. (Previously Presented) The networking device as described in Claim 17 wherein said second packet processor is also for receiving said first packet and said second packet.

19. (Previously Presented) The networking device as described in Claim 15 wherein said second packet processor is also for sending said first packet out of said networking device.

20. (original) The networking device as described in Claim 15 further comprising a plurality of packet processors in addition to said first and said second packet processors coupled to said switching fabric.

21. (Previously Presented) The networking device as described in Claim 15 wherein said memory request comprises a first portion to indicate that said first packet is not at a head of said queue.

22. (Previously Presented) The networking device as described in Claim 15 wherein said first packet is an internet protocol packet.

23. (currently amended) A networking device comprising:
a means for sending a memory request corresponding to a second packet prior to sending a first packet, wherein said first packet is received prior to receiving said second packet, ~~said means for sending a memory request comprising:~~

~~means for maintaining the transfer order of said first and said second packets, wherein said means for maintaining the transfer order of said first and said second packets comprises a transfer order queue;~~
and

~~means for sending said memory request for said second packet prior to said second packet reaching a head of said transfer order queue.~~

24-26. (cancelled)

27. (original) The networking device as described in Claim 23 wherein said means for sending a memory request further comprises means to request resource to transfer said packet.

28. (original) The networking device as described in Claim 23 wherein said means for sending a memory request further comprises means for accepting a memory reply prior to forwarding said packet.

29. (original) The networking device as described in Claim 28 wherein said means for accepting a memory reply further comprises means to assign network resource to transfer said packet.

30. (original) The networking device as described in Claim 23 wherein said packet is an internet protocol packet.

31. (New) The method as described in Claim 1 wherein said first packet and said second packet are maintained in a transfer order queue.

32. (New) The method as described in Claim 31 wherein said second memory request is sent prior to said second packet moving to a head of said transfer order queue.

33. (New) The method as described in Claim 8 wherein said first packet and said second packet are maintained in a transfer order queue.

34. (New) The method as described in Claim 33 wherein said second memory request is sent prior to said second packet moving to a head of said transfer order queue.

35. (New) The networking device as described in Claim 23 wherein said means for sending a memory request further comprises means for maintaining the transfer order of said first and said second packets.

36. (New) The networking device as described in Claim 35 wherein said means for maintaining the transfer order of said first and said second packets comprises a transfer order queue.

37. (New) The networking device as described in Claim 25 wherein said means for sending a memory request further comprise sending said memory request

for said second packet prior to said second packet reaching a head of said transfer order queue.